# Wairau Catchment Flood Resilience

Facilitator: Chris Mene

Panellists:

**Councillor Richard Hills** 

Barry Potter, Director Resilience & Infrastructure

Tom Mansell, Head of Sustainable Partnerships, Healthy Waters & Flood Resilience





# **Auckland Anniversary Weekend 2023**





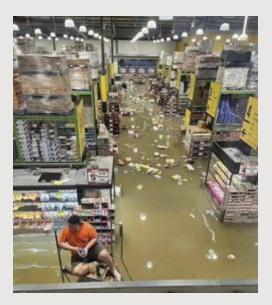












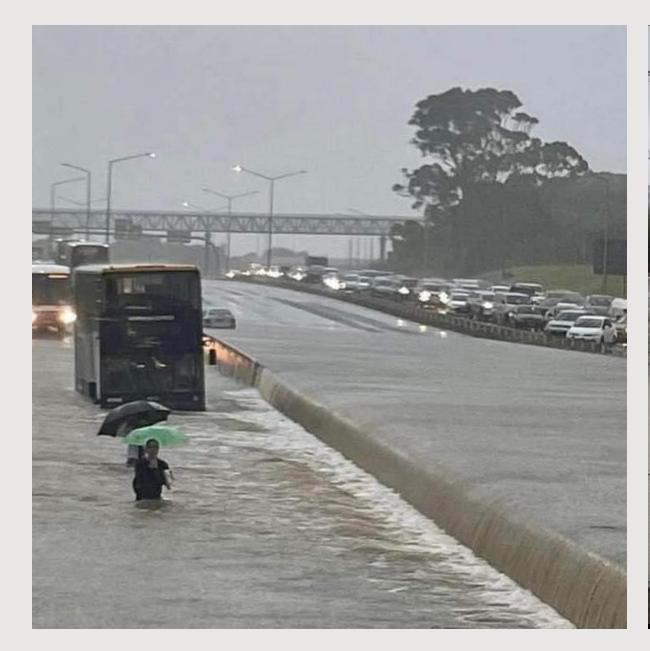
**Z** fatalities

\$2.5b in insurance claims across Auckland 163
Category 3
properties in
Wairau

18km
Of waterways in
1,300ha

1 of 4
Blue-green network projects underway

**52,000**People call
Wairau home













# Unprecedented cost-sharing deal

- Approx \$2 billion joint funding with government
  - Category 3 buy-outs
  - Making space for Water initiatives
  - Transport Network Repair



# **Property buy-outs and future land-use**

Buyout and removal of properties is ongoing

Future use of land will depend on blue-green solutions



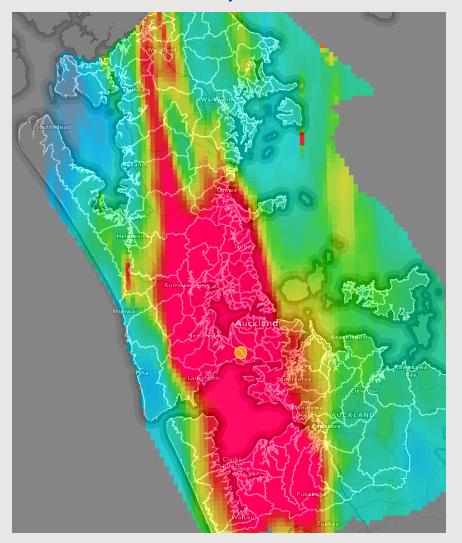
# Why is development still occurring in flood plains?

- Auckland Council is bound by the Resource Management Act and the Building Act
- Plan Change requires public consultation. Opportunity to propose greater restrictions on development in some hazard areas

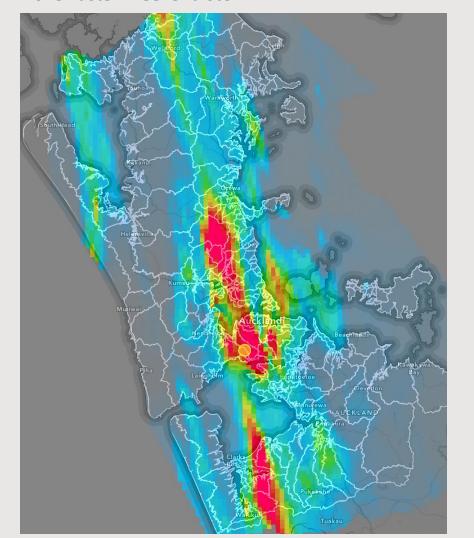


# **Storm Event Comparison (Max ARI)**

#### **2023** Auckland Anniversary Weekend



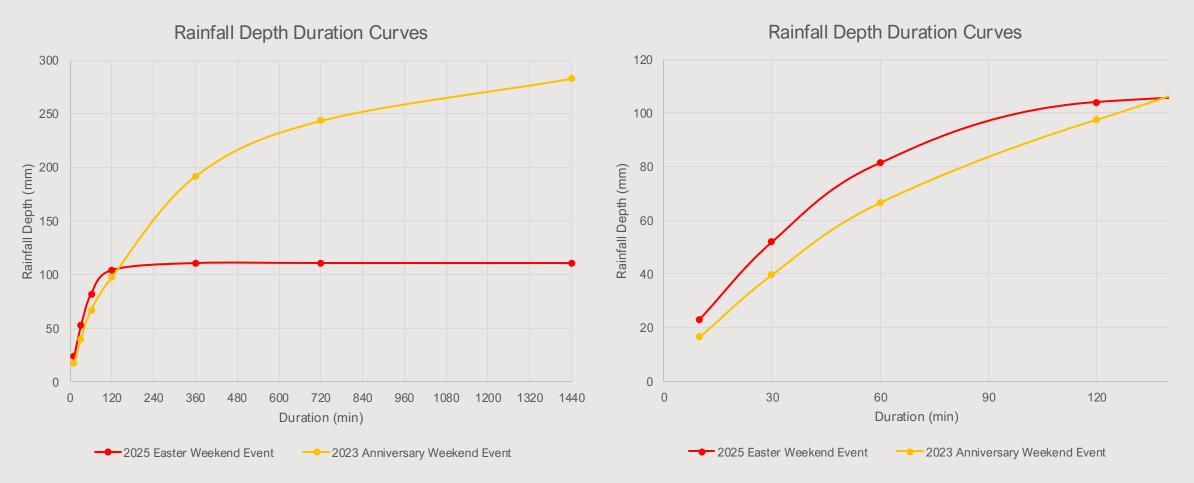
#### **2025 Easter Weekend Storm**



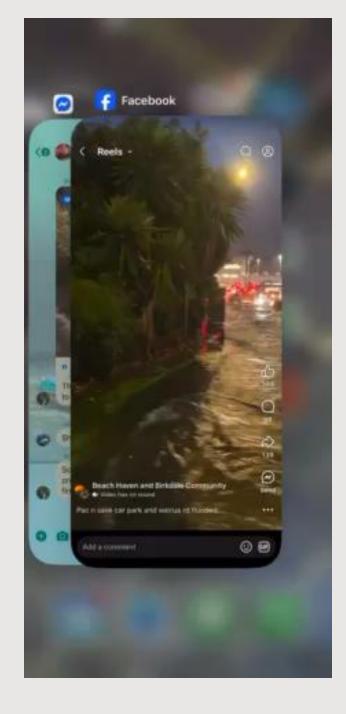




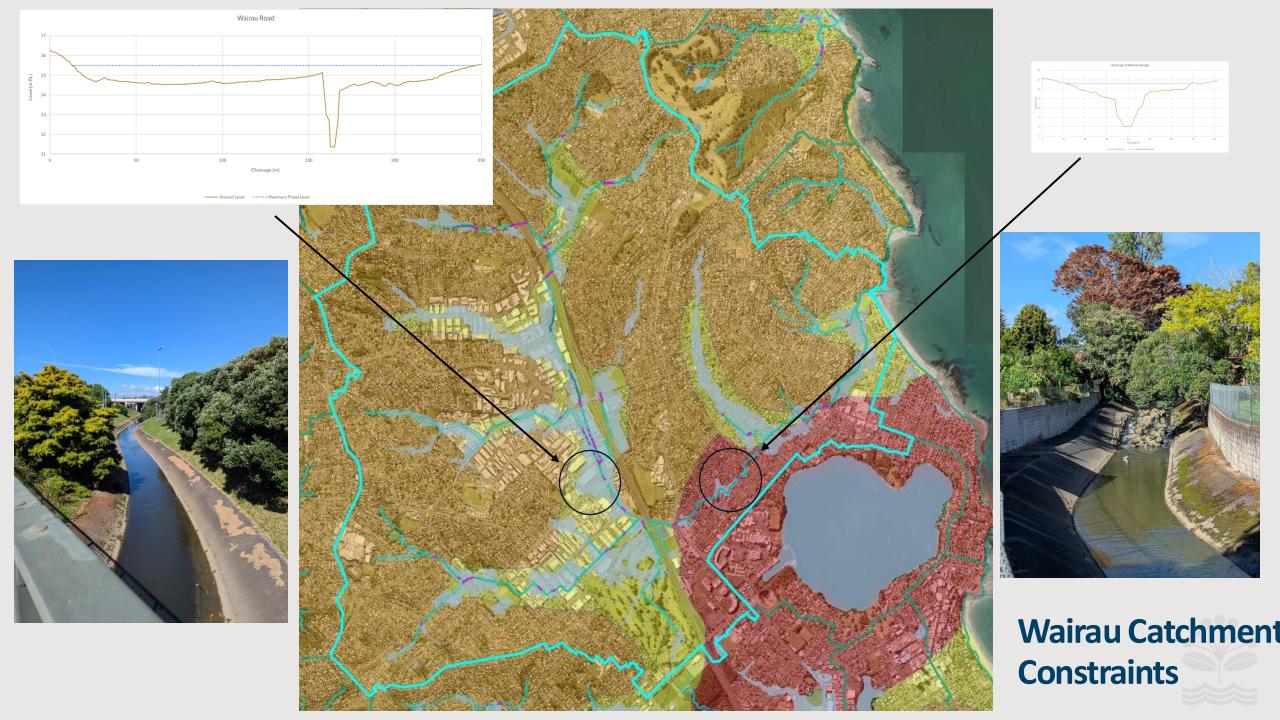
## Storm Event Comparison: 2023 vs 2025 Easter weekend



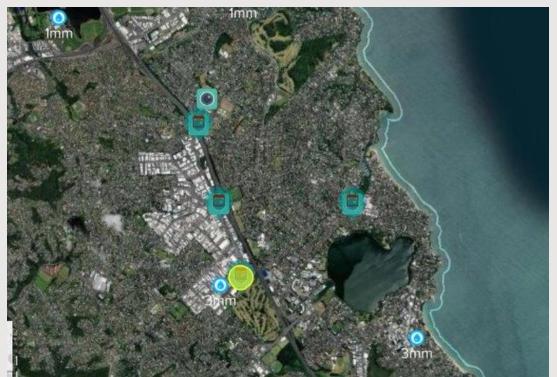








## What's been done – Stormwater network improvements

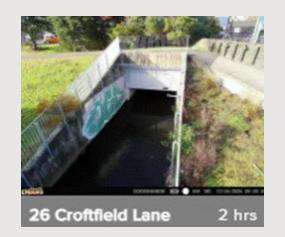




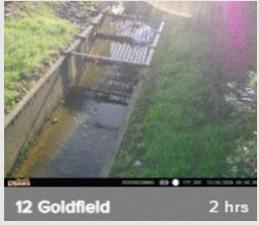
- 36 Hotspots inspected monthly and before storm
  - 5 monitoring cameras installed
- Increased catch-pit cleaning of 2,500
- New water quality treatment device installed
- Watercourse at Bryan Byrnes Reserve dredged, desilting of Link Drive pond
- Other increased inspections and maintenance



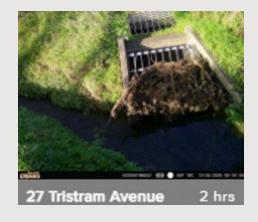
# **Hotspot cameras**

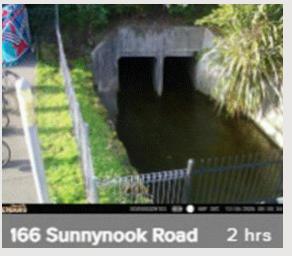






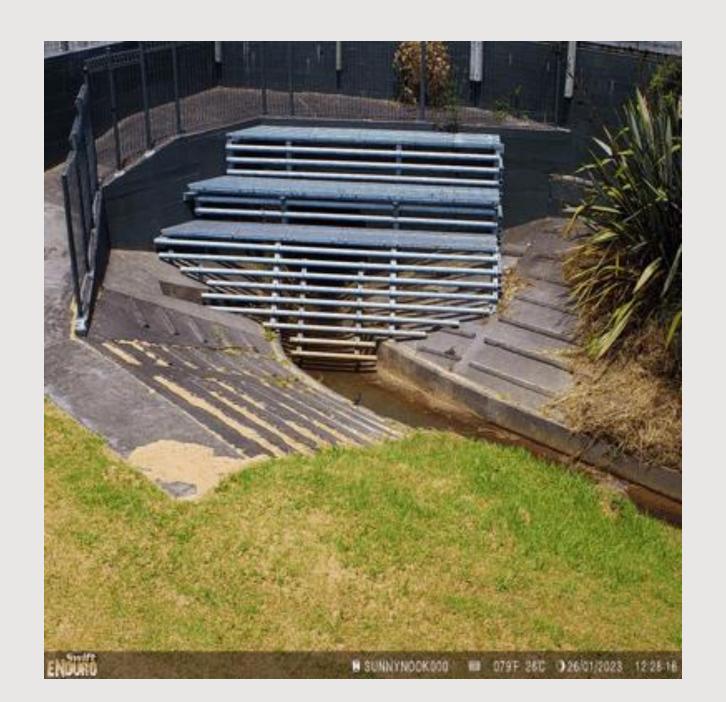








# **Outcomes**





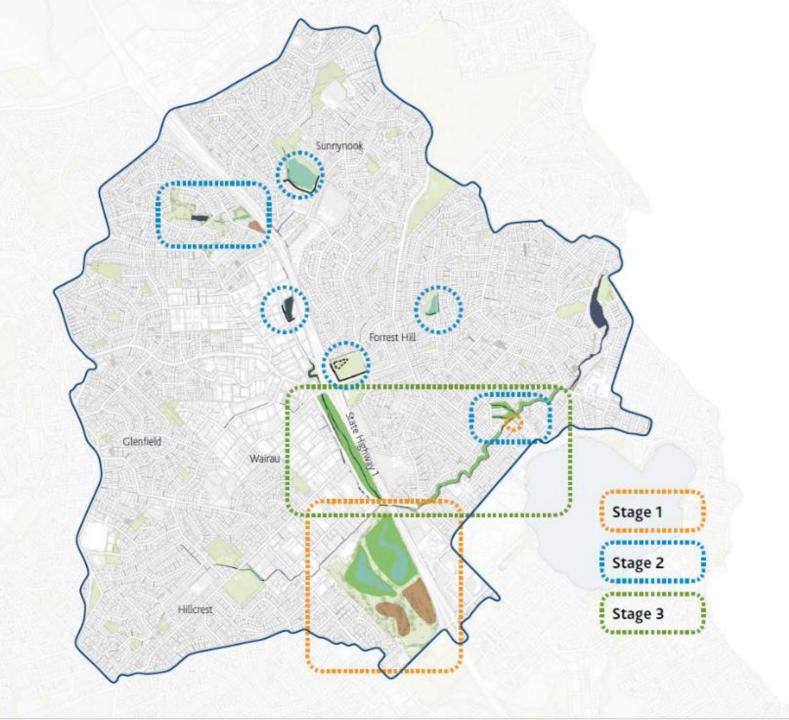
# What's been done – Healthy Waters Community Engagement



- Door knocking spreading awareness of how to prepare for flooding and use Flood Viewer
- Northern Community Flood Resilience: stream care and clean ups, resilience activities, pest plant control and rubbish clean ups.
- Predator Monitoring
- Regular community clean ups funded by Local Boards and Healthy Waters.







# Wairau Blue-Green Network

**Stage 1:** (co-funded with Crown)

- Increased stormwater detention at AF Thomas Park
- Removal of the Woodbridge Lane Bridge.

**Stage 2: (**Subject to future LTP funding)

- Blue-green network upgrades to informal overland flow paths, stream widening and daylighting in and adjacent to Nile Road and Totara Vale.
- Minor existing detention upgrades.

**Stage 3: (**Long-term and currently unfunded)

 Works to widen the creek along Wairau Road and from State Highway 1 to Kitchener Road.

### Primary Objectives of Wairau Blue-Green Network - Stage 1 & 2







#### Reduce flood risk

- Over 10 ha (260 homes) with reduced flood risk.
- Protect vital roads.

#### **Protect core infrastructure**

- Maintain access to North Shore Hospital, supermarkets and schools.
- Secure utility systems: power substation and wastewater systems.

# Increase resilience of stormwater assets

- Slowing run off, promoting infiltration and reducing peak flows reducing system overload.
- Integrating with traditional systems increasing capacity

## Secondary Objectives of Wairau Blue-Green Network – Stage 1 & 2



Enhance water quality and reduce sedimentation



Better and more equitable open space and connectivity



**Economic uplift** 



**Enhanced biodiversity** 



**Social wellbeing** 



Support mana whenua partnership outcomes



Optimise acquired Category 3 land



Efficient operations and maintenance



# Flood Management - Stage 1



#### **Increased Stormwater detention**

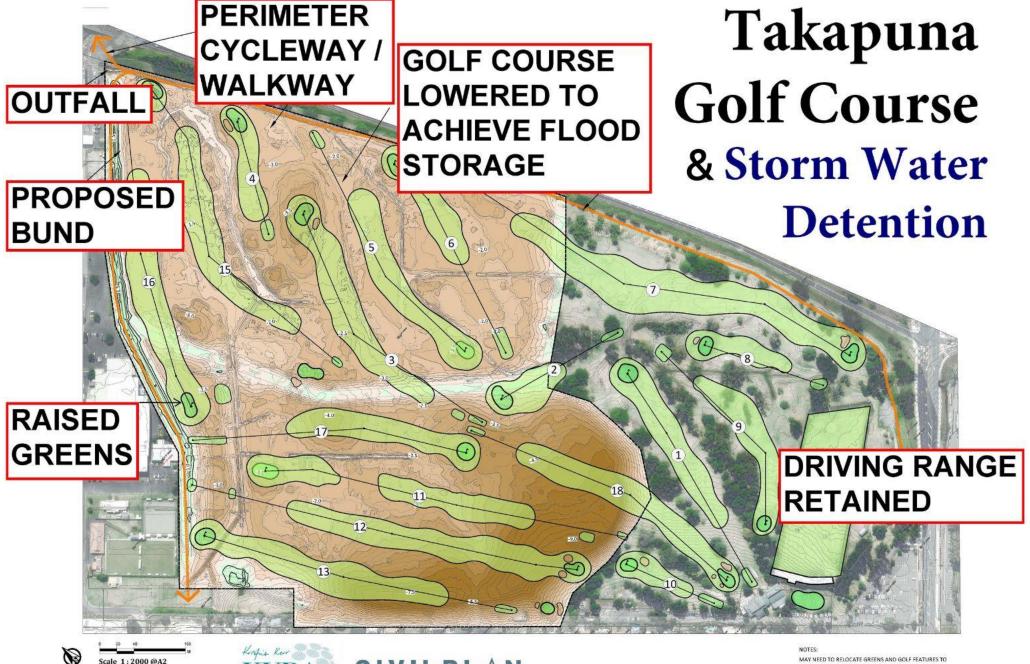
Increasing storage from 60,000m³ to 500,000m³ (220 Olympic pools) through wetland(s), dry detention and formalising overland flow paths.



### **Enabling Works**

Bridge removal in lower catchment to reduce obstructions increasing flood waters.



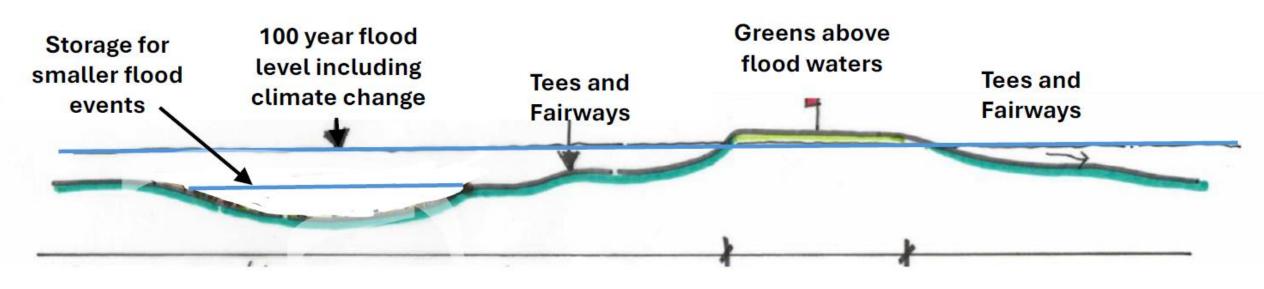












Lower existing ground to create interlinked detention areas

# CROSS-SECTION THROUGH FLOOD DETENTION AREAS, LOWERED GOLF HOLES (nts)





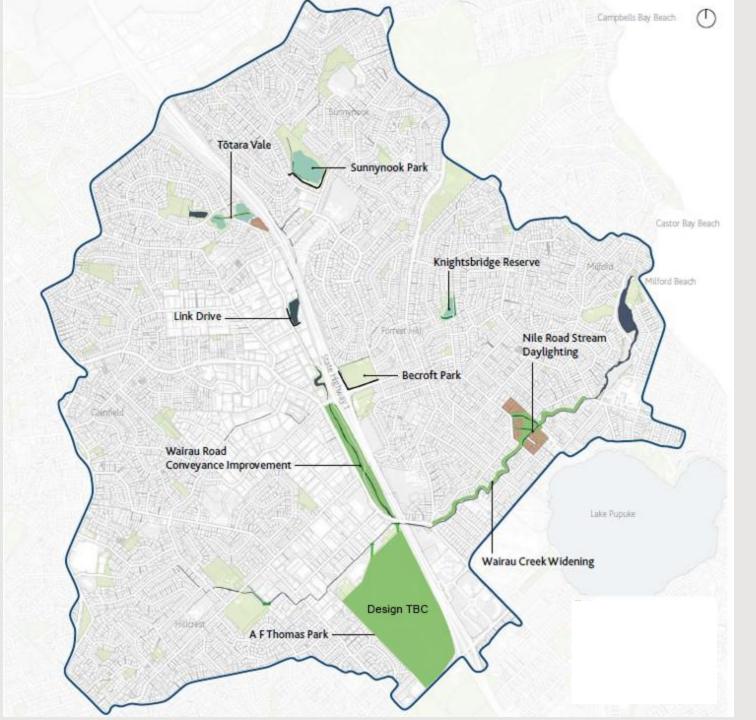


# Stage 2

#### Milford and Totara Vale

- Using Category 3 buy-out land for stream widening, daylighting and improved overland flow paths.
- Building on Recovery Office work; designs will be developed in collaboration with the Storm-affected Land Use team.
- Improvements to existing detention basins.





# **Stage 3 – Potential Wider Catchment Interventions**

• Included in long-term strategy but currently unfunded, widening of Wairau Creek (Wairau Road to Kitchener Road).



**Late 2025** Mid 2025 2026 2027 March-April 2025 **Sept 2024 RECOVERY RESPONSE** STORMWATER NETWORK IMPROVEMENTS **ONGOING COMMUNITY ENGAGEMENT ACTIVITIES** INTENSIVE BLUE-GREEN NETWORK COMMUNITY ENGAGEMENT WAIRAU BLUE-GREEN NETWORK **Concept Design Preliminary Design Detailed Design** Construction **Assessment of Final Cat 3 Funding** Develop detailed taged **AF Thomas** property approvals designs construction Park options purchasing begins complete Design **Planning for** Consent optioneering Design Woodbridge applications starts development for Lane bridge **AF Thomas Park** removal Community **Business Case** underway **Advisory Group Technical** presented to **Established** investigations **Assessment of** relevant **Ongoing** wider governance community **Ongoing** community group engagement **Categorisation** community recreation needs Complete engagement begins We are here

# **Project Partnerships**

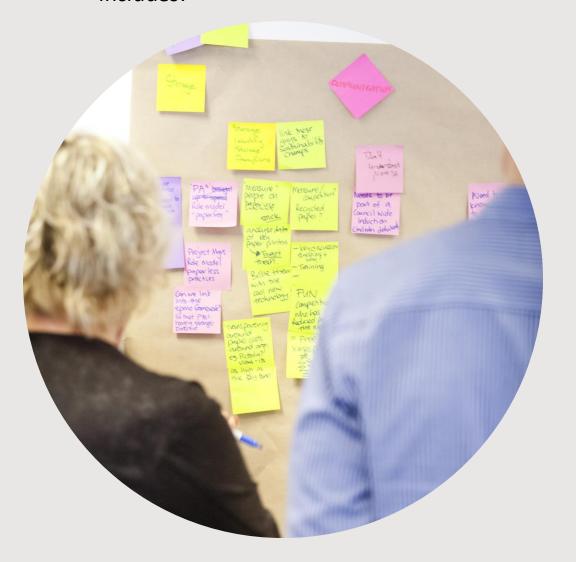


- Elected representatives
- Community Advisory Group
- Mana Whenua
- Internal council groups
  - Healthy Waters and Flood Resilience
  - Community and social innovation
  - Parks and Community Facilities
  - Recovery Office
  - Storm Affected Land Recovery



### **Community Advisory Group**

An inclusive catchment wide group to ensure community aspirations and concerns are addressed membership includes:



- Local Board representation
- Ropū Māori;
- Resident Associations
- Business associations
- Sports and recreation
- Schools and education
- Community organisations



# Working with nature





# To stay informed email <u>bluegreen@aucklandcouncil.govt.nz</u> to be added to the Wairau Valley blue-green contact list.



